

REMARKS

In the Office Action mailed January 29, 2004, the Examiner noted that claims 1-24 were pending, that claim 18 has been withdrawn from consideration, allowed claims 22 and 23, objected to claims 9 and 10 and rejected claims 1-8, 11-21 and 24. Claims 1, 5, 9, 11, 15-17, 19-21 and 24 have been amended, new claims 25 and 26 have been added and, thus, in view of the forgoing claims 1-17 and 19-26 remain pending for reconsideration which is requested. No new matter has been added. The Examiner's rejections and objections are traversed below.

In the Office Action the Examiner objected to claims 9 and 10 and indicated that these claims would be allowable if rewritten in independent form. These claims have been so rewritten and it is submitted that these claims have not been narrowed and have the same scope as prior to being made independent and are now allowable. Withdrawal of the objection is requested.

On page 4 of the Action the Examiner rejected claims 5-10 and 21 under 35 U.S.C. section 112, paragraph 1 for failure to comply with the written description requirement. Claims 5 and 21 have been amended in consideration of the Examiner comments and it is submitted that the claims satisfy 35 USC section 112. Withdrawal of the rejection is requested.

On page 5 of the Office Action, the Examiner rejected claims 1-8, 11-14, 16-21 and 24 under 35 U.S.C. section 102 as anticipated by Kamitani. Page 12 of the Office Action rejects claim 15 under 35 U.S.C. § 103 over Kamitani and Tanaka.

In this rejection, the Examiner is equating the partial pattern comparison of Kamitami, such as comparing the partial pattern shown in figure 4, with the feature amount comparison of the present invention. The partial patterns of Kamitami, such as shown in figure 4, are two dimensional pixel patterns.

In contrast, the claims of the present invention call for comparing feature amount (see claims 1, 5, 11, 16, 19, and 20) or feature size (see claim 24). According to the Merriam-Webster Online Dictionary "amount" means the total number or quantity and "size" means physical magnitude, extent, or bulk: relative or proportionate dimensions. Comparing amount (total number) or size (physical magnitude) to determine character segmentation as in the present invention is very different from comparing patterns as in Kamitami. Tanaka adds nothing to Kamitani with respect to these features. For this reason, it is submitted that the rejection should be withdrawn.

The present invention as noted above compares feature amount of the category and image and an area similar to the feature amount of the category is segmented. With this

approach it is possible to segment a pattern at the position where the pattern is located. As a result, it is possible to segment neighboring patterns even when there is contact between the patterns and the contact point is not a local "minimum" associated with "a black pixel projection histogram". The reliability of the segmentation is improved and it is possible to prevent segmentation into many parts ("large number of areas") corresponding to local minimums even when the shape has protruding or "uneven" portions (see claims 1, 11, 15, 17, 19, 20 and 24). Tanaka adds nothing to Kamitani with respect to these features. For this additional reason, it is submitted that the rejection should be withdrawn.

In the present invention (see claims 5, 16 and 21) a feature amount is a sequence of elements in a category array direction where first and last elements of the feature amount are moved in the array direction independently of each other to determine the correspondence of the feature amount of the category and the image string. With this approach the level of comparison accuracy is maintained at a high level even when the string is associated with a distortion or deformation. As a result, failure of correspondence determination is prevented even when a large variety of character strings are input. Tanaka adds nothing to Kamitani with respect to these features. For this further reason, it is submitted that the rejection should be withdrawn.

It is submitted that the invention of independent claims distinguishes over the prior art and withdrawal of the rejection is requested.

New claim 25 emphasizes that the features of the present invention include number of pixels feature comparison. As noted above, in the Action, with respect to Kamitani, the Examiner interpreted and compared partial patterns of Kamitani with the feature amount of the present invention. The partial patterns of Kamitani, such as shown in figure 4, are two dimensional pixel patterns. In contrast, the present invention of claim 25 uses a counted "number of pixels" feature amount as the characteristic being compared for segmenting. The use of a number of pixels the comparison characteristic is discussed in the application with respect to figures 2A and 2B on pages 11-13. This is very different from using a two dimensional pattern for comparison. The use of a number of pixels allows a much faster comparison than is possible for a pattern comparison. Tanaka adds nothing to Kamitani with respect to these features. Nothing in the prior art teaches or suggests such as discussed above. New claim 26 emphasizes that the features of the present invention include character feature physical size comparison. Again, nothing in the prior art teaches or suggests such. It is submitted that these new claims, which are different and not narrower than prior filed claims distinguishes over the prior art.

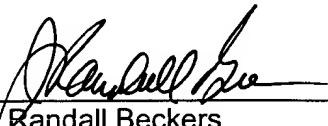
It is submitted that the claims satisfy the requirements of 35 U.S.C. section 112. It is also submitted that claims 9, 10, 22 and 23 continue to be allowable. It is further submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.

If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.

Respectfully submitted,

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